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09/817,437	03/26/2001	Stephen J. Todd	JW-EMC-007/EMC-00-135	9135
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EMC CORPORATION OFFICE OF THE GENERAL COUNSEL 176 SOUTH STREET HOPKINTON, MA 01748			EXAMINER VO, TED T	
			ART UNIT	PAPER NUMBER
			2191	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/817,437

Applicant(s)

TODD ET AL.

Examiner

Ted T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-81 and 83-89 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-81 and 83-89 is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. This action is in response to the amendment filed on 03/12/2007.

Claims 81, 83 are amended; claim 82 is canceled. Claims 1-81, 83-89 are pending in the application.

### *Response to Arguments*

2. Applicant's arguments filed on 03/12/2007 have been fully considered but they are not persuasive. Especially, Applicants argued that their claims 1-81, 83-89 are allowable.

Examiner responds:

Applicants' arguments fail to amend or to point out any patentability if it presents in the claims. The arguments amount only generic allegations without addressing patentability in the claims.

Particularly, considering claim 81 that recites broadly:

an interface between said first computer network and said second computer network to automatically convert communication from said second computer network into a form compatible with said first computer network, and to automatically convert response to said communication generated by said first computer network into a form compatible with said second computer network;

The claimed limitation does not have any patentable feature and the amendment of this claim does not suggest any patentable features in accordance to 1.111(c). It should be noted that every computer connected in a network has a user interface. Every user can automatically convert legacy code such as 32-bit legacy code to a 64-bit code run in his computer by using a program, or convert C++ code in to the CIM model as discussed by the prior arts; or he can manually converts the code. Every act like this reads the claim limitations. It is improper to claim a prior art feature, and then on the other hand, the arguments are merely to consider the claimed features (of the prior arts) as patentability. Furthermore, many terms used in claims act like "inclusion" rather functionality to the claim for limiting the claim. For example, considering, *"wherein said first software architecture is legacy software architecture and said second*

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*software architecture is non-legacy software architecture*". The clause "wherein" in this phrase does not form any functionality to limit the claims, but intended to a purpose to the preamble of the claim.

A clause in a claim that is intended to a purpose of the preamble, *first software architecture*, and away from the functionality in the claim fails to form an infringement element, and fails to limit the claim (e.g. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165 (Fed. Cir. 1999). See also Rowe v. Dror, 112 F.3d 473, 478, 42 USPQ2d 1550, 1553 (Fed. Cir. 1997) ("where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention).

Furthermore, the term, "automatically convert" used in the claim is merely a replacement of a manual activity rather to provide a novelty (e.g. In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958), the court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art).

All applicants' arguments fail to discuss their patentability, but fall in many court rules.

- Considering the arguments to the claims rejected under 35 U.S.C. 102(b) as being anticipated by DMTF, "Common Information Model (CIM) Specification", 6-1999. Applicants' arguments are not persuasive, but amount only generic allegations, where the arguments addressed only the non-patentability on the claim and addressed only things that are already existed in prior arts. None of patentably subject matters are discussed.

On the other hand, the CIM specification teaches the heart of the claims, converting an existed source code into the CIM. DMTF provides the CIM specification to allow a conversion of any legacy code into a target system (see abstract, page (I)). Through out the CIM specification, it is clearly that DMTF architects a model so that a user uses it for conversion scheme. The claims and the specification of this application clearly participate in the architecture of the CIM model. It is not necessary for DMTF to explicitly address a "first a network" that includes "a first computer network" operative in accordance with "first software architecture", because every network participant mentioned in p. I, like Compaq Computer, Computer Associate, Sun Microsystems, etc., had its network operated on the manner of the claim. It is not necessary for DMTF to explicitly address a "*second computer network*" operative in accordance with

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second software architecture, because every computer is operated in its own software architecture. It is improper to claim the principle provided by DMTF, while the arguments addressed only the non-patentability.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 81 is rejected under 35 U.S.C. 102(b) as being anticipated by Hammer et al., "Information Translation, Mediation, and Mosaic-Based Browsing in the TSIMMIS System", SIGMOD Demo Proposal, CiteSeer, pp. 1-5, 1995.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 81: Hammer discloses a *network* (Figure 2) *including a first computer network* (Figure 2: Mosaic/server) *operating in accordance with first software architecture* (Abstract: translating source) *and a second computer network* (Figure 2: Translators/Mediators) *operating in accordance with second software architecture, the improvement comprising:*

*an interface between said first computer network and said second computer network* (Figure 2: MOBILE/TSIMMIS) *to automatically convert* (i.e. translation of the translator) *communication from said second computer network into a form compatible with said first computer network, and to automatically convert response to said communication generated by said first computer network* (HTTP Demon) *into a form compatible with said second computer network* (i.e., the translating source information into a

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common self-describing object model OEM as described in the abstract. See p.60; Mapping of existing models (*first computer network*) into CIM (*second computer network*); p. 69, the mapping in target/source model);

*"wherein said first software architecture (in the preamble) is legacy software architecture and said second software architecture (in the preamble) is non-legacy software architecture"* (intended use to the preamble, a *network* (Figure 2: *including a first computer network*) (Figure 2: Mosaic/server: a *second computer network*), without functionality in the body of the claim).

5. Claims 1-81, 83-89 are rejected under 35 U.S.C. 102(b) as being anticipated by DMTF, "Common Information Model (CIM) Specification", 6-1999.

Given the broadest reasonable interpretation of followed claims in light of the specification.

As per Claim 1: DMTF discloses, *system comprising:*

*a schema formed within said first software architecture* (See the Figure 1-1 in p. 3, Repository, Application DBMS, Application Object, or Exchange Parameters, etc. For example, "Physical schema of a targeted DBMS", or MOF files. >Thus, management software such as Application DBMS, Application Object contains *schema* <);

*header files* (See p. 3, 'actual instances of constructs'; see p. 46, "definition" that seats on top of a MOF schema (Figure 5-1). See p. 60, "meta constructs", that seats on top of a schema of an existing models mapped in to CIM, where the reference shows "meta constructs" represents MIF, GDMO, SMI, etc. See p. 73, a schema name is followed with a file name, where this is corresponding to the mapping from the first software. And all related elements involved in a mapping must be referenced, for example, see, p. 40, i.e. 'include file' (of C/C++: header file): a compiler directive detects "include file" specified in a MOF file for inserting its content in the file in a compiling conversion) *contained within said schema, said header files being represented in said first language and capable of being utilized by said management software* (This limitation is only to recite a "definition" of header file. For example, an "include file" specified in a header of a C program, will cause the compilation/execution to utilize the "things" that are included);

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*means for manipulating said header files to locate public functions and/or data attributes of said header files* (See p. 46, 'manipulate an object...' also see, 'actual instances are manipulated using the native...');

*means, responsive to operation of said manipulating means, for emitting code that calls said public functions and/or data attributes in said first language to obtain called public functions and/or data attributes* (see p. 46, Figure 5-1, see text, e.g., 'Second, an import operation is performed to insert instance into the platform or tool': *emitting code*, where the methods and attributes in the instance read: *public functions/ data attributes*. See p. 60, Mapping Existing Models into CIM); *and*,

*means for converting said called public functions and/or data attributes to representations of said called public functions and/or data attributes formed in a different computer language compatible with said second software architecture* (For example, started at p. 50, it defines the structure of CIM objects used for mapping. See p. 60, Mapping Existing Models into CIM: CIM: "*different computer language compatible*")

As per claim 12: Claim 12 is a network, employing a system that has the means as recited in claim 1.

See rationale in the rejection of claim 1.

As per Claim 24: Claim 24 claims a method that utilizes the means recited in the system of claim 1. See rationale in the rejection of claim 1.

For example,

*"said management software utilizing a schema having header files in said first language* (See p. 3, Figure 1-1 and text: Application DBMS, Application Object: *management software utilizing a schema* – where C++, written for Application DBMS, Application Object, is management software that has header files such as "include" headed in a C++ file);

*manipulating* (See p. 46, including Figure 5-1, and texts) *said header files to locate public functions and/or data attributes of said header files* (See rationale addressed in the rejection of claim 1 above); *and*, *responsive to operation of said manipulating*,

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*emitting code that calls said public functions and/or data attributes in said first language to obtain called public functions and/or data attributes and converts said called public functions and/or data attributes to representations of said called public functions and/or data attributes formed in a different computer language compatible with said standardized software architecture* (see the rationale addressed the rejection of Claim 1 above; i.e., see in p. 46, Figure 5-1, and see the definitions of CIM objects started at p. 50, and see the mapping into a CIM models as shown in figure 6-1, p. 60, where CIM objects: "*different computer language compatible*"),

As per claim 37: Claim 37 claims a program product embodied in a computer system as of claim 1, and the code in claim 37 performs the steps corresponding to the means of claim 1 or the steps of claim 24. See rationale in the rejection of claim 1/24.

As per claim 49: Claim 49 claims a program product embodied in a computer system as of claim 1, and the code in claim 49 performs the steps corresponding to the means of claim 1 or the steps of claim 24. See rationale in the rejection of claim 1/24.

As per claim 52: Claim 52 claims a network including a computer system having the code as of claim 37/49, and the code performs the steps corresponding to the means of claim 1 or the steps of claim 24. See rationale in the rejection of claim 1/24.

As per claim 59: DMTF discloses a method comprising,

*receiving and manipulating said header files* (See the teaching of compiler (p.46) such as Figure 5-1, it receives the actual instances or the definitions existed in these kinds of schemas and manipulating for a mapping to CIM objects; or the mapping (p. 60) it receives meta constructs; or the MIF to CIM (p. 61) in figure 6-2, wherein this figure, it shows a schema having heading GROUP with name, ID, class, and referenced with an "include" to attributes: '*header files*'. Also refer to p.46: actual instances are manipulated);

*receiving first requests* (See p. 46: This is the language of mapping, input in a compiler, where the input is Application DBMS, Application Object (Figure 1-1), MOF files (Figure 5-1), MIF files (Figure 6-2) *in first language incompatible with said legacy software architecture* (Application DBMS, Application



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Object, repository classes (in p. 3). Figure 5-1 shows receiving MOF files. In p. 60-61, Figure 6-1 shows receiving MIF, GDMO, SMI files; and figure 6-2, MIF files: *first language*);

*obtaining responses to said first requests in second language compatible with said legacy software architecture* (start compiling, mapping, such as Figure 5-1, 6-1, 6-2, recast mapping of Figure 6-3); and,

*converting said responses to equivalent responses compatible with said first language and for communicating said equivalent responses to the destination from which, or to destinations related to that from which, said first requests originated* (that is CIM objects mapped from Application DBMS, Application Object, MOF, MIF, GDMO, SMI files).

As per claim 63: Claim 63 claims a computer system that performs the steps of method 59. See rationale in the rejection of claim 59.

As per claim 68: Claim 68 claims a computer program product that has the code performing the steps of method 59. See rationale in the rejection of claim 59.

As per claim 70: Claim 70 appears to be duplicated from Claim 59.

See rationale in the rejection of claim 59.

As per claim 75: Claim 75 claims a computer network that performs the method of claim 59. See rationale in the rejection of claim 59.

As per Claim 81: DMTF discloses a *network* (a common network such as seen in the Abstract, p. 1) *including a first computer network* (a computer in the network) *operating in accordance with first software architecture and a second computer network* (Abstract: the management of the system with the object-oriented paradigm) *operating in accordance with second software architecture, the improvement comprising:*

*an interface between said first computer network and said second computer network* (See section Introduction, p.1, APIs, or communication protocols: *an interface*. See the figure in p. 71, a user using such protocols to connect his computer to another computer in a network, he does the mapping for Application DBMS, Application Object, MOF, MIF, GDMO, SMI files, based on CIM specification to

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convert these applications/files into CIM objects) *to automatically convert communication from said second computer network into a form compatible with said first computer network, and to automatically convert response to said communication generated by said first computer network into a form compatible with said second computer network* (where all Application DBMS, Application Object, MOF, MIF, GDMO, SMI files represents represent first software architecture, and CIM object represents the second software architecture converted form the first software architecture);

*"wherein said first software architecture (in the preamble) is legacy software architecture and said second software architecture (in the preamble) is non-legacy software architecture"* (intended use to the preamble, without functionality in the body of the claim).

As per Claim 2: DMTF discloses, *The computer system of claim 1 further comprising means for forwarding said representations to desired destinations within and beyond said system* (See figure of p. 71).

As per Claim 3: DMTF discloses, *The computer system of claim 1 and wherein said first computer language is RAID++ (Equivalent Functionality: C++ as mentioned) and said different computer language is XML/CIM (Equivalent Functionality: the specification file that is viewable by CIAO as mentioned).*

As per Claim 4: DMTF discloses, *The computer system of claim 1 and wherein said first computer language is an object-oriented language defining computer data and commands as objects, said manipulating means comprising: means for opening at least one of said header files containing a declaration of at least one of said objects; means for parsing said at least one of said header files to obtain name of class and name of parent class to which said at least one of said objects belongs; and, means for creating a subroutine for accepting said at least one of said objects in said first computer language and generating the equivalent of said at least one of said objects in a different computer language compatible with said second software architecture* (Application DBMS, Application Object, MOF, MIF, GDMO, SMI files are object-oriented, see the manipulation of instances (p.46) where the instances are corresponding to the elements in the object-oriented structures of these applications/files, and where *means for creating a subroutine for accepting said at least one of said objects*, is referred to

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mapping techniques, i.e. in the software a mapping such as a compiler or a tool is created subroutine or created program that takes input, first software architecture into CIM objects).

As per Claim 5: DMTF discloses, *The computer system of claim 1 further comprising means for inhibiting initiation of operation of said converting means until said public functions and/or data attributes of said header files are located* (start mapping).

As per Claim 6: DMTF discloses, *The computer system of claim 1 further comprising means for initiating operation of said converting means upon locating the first of any one of said public functions and/or data attributes.* (mapping).

As per Claim 7: DMTF discloses, *The computer system of claim 1 and wherein said first computer language is C++ and said different computer language is XML/CIM* (refer to Figure 1-1, DBMS, where C++ is common language for this application (See C++ in p. 10): *first computer language is C++*, and the different computer language is referred to CIM objects:

Note: all the claimed elements such as C++/XML/CIM are only data limitations that cannot be distinct from the terms *first computer language/ second computer language*).

As per Claim 8: DMTF discloses, *The computer system of claim 1 and wherein said first computer language is a first object-oriented language* (Refer to DBMS, Objects in repository); *capable of pictorial representation typically in a parent-child tree configuration* and *said different computer language is a second object oriented language capable of pictorial representation typically in a flat database configuration* (Refer to CIM).

As per Claim 9: DMTF discloses, *The computer system of claim 1 further comprising means for inhibiting initiation of operation of said converting means until said public functions and/or data attributes of at least one of said header files are located* (See mapping).

As per Claim 10: DMTF discloses, *The computer system of claim 1 and wherein said management software is storage management software* (See repository).

As per Claim 11: DMTF discloses, *The computer system of claim 1 and wherein said management software is selected from the group consisting of storage, printer, and server management software*

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(Management software in a repository of a computer system will have *storage, printer, and server management software*).

As per Claims 13-23: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11, where with respect to the data limitation SAN in the Claim 21, the repository as shown in Figure 1-1 is a storage system that reads the language SAN.

As per Claims 25-36: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11.

As per Claims 38-48: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11.

As per Claims 50-51: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11.

As per Claims 53-58: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11/or 13-23.

As per Claims 60-62: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11/or 13-23.

As per Claims 64-67: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11/or 13-23.

As per Claim 69: DMTF discloses the limitations of this claim. See rationale addressed in Claims 2-11.

As per Claims 71-74: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11/or 13-23.

As per Claims 76-80: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11/or 13-23.

As per Claims 83-89: DMTF discloses the limitations of these claims. See rationale addressed in Claims 2-11/or 13-23.

### **Conclusion**

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6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV  
May 11, 2007



TED VO  
PRIMARY EXAMINER